

Applications

1. Use the table to answer parts (a)–(e).

Typical Weights for Tiger Cubs	
Age (weeks)	Expected Body Weight (kg)
birth	1.3
1	2.3
2	3.0
3	3.8
4	4.5
5	5.2
6	6.0
7	6.7
8	7.5
9	7.6
10	8.9
11	9.7

SOURCE: www.tigerlink.org



- What weight is predicted for a 1-week-old tiger cub?
- What weight is predicted for a 10-week-old tiger cub?
- At what age do tiger cubs typically weigh 7 kilograms?
- Describe the pattern relating age and weight. Do you expect this pattern to continue indefinitely?
- Would it make sense to connect the points in a graph of these data?

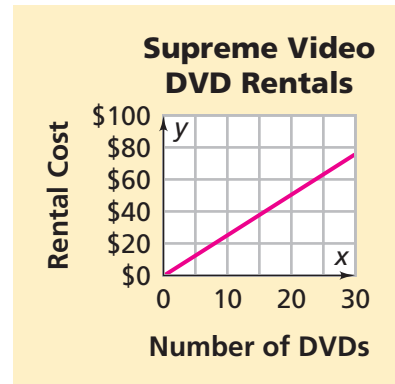
2. Dezi researches DVD rental prices at local video stores. Source Video has a yearly membership package. The manager gives Dezi this table:

Source Video Membership/Rental Packages

Number of DVDs Rented	0	5	10	15	20	25	30
Total Cost	\$30	\$35	\$40	\$45	\$50	\$55	\$60

Supreme Video does not have membership packages. Dezi makes the graph below to relate the cost at Supreme Video to the number of DVDs rented.

- Both video stores have a good selection of movies. Dezi's family plans to watch about two movies a month. Which video store should they choose?
- Write a paragraph explaining to Dezi how he can decide which video store to use.
- For each store, describe the pattern of change relating the number of DVDs rented to the cost.



3. The table shows the fees charged at one of the campgrounds on the Ocean Bike Tour.

Campground Fees

Number of Campsites	1	2	3	4	5	6	7	8
Total Campground Fee	\$12.50	\$25.00	\$37.50	\$50.00	\$62.50	\$75.00	\$87.50	\$100.00

- Make a coordinate graph of the data.
- Does it make sense to connect the points on your graph? Explain.
- Using the table, describe the pattern of change in the total campground fee as the number of campsites increases.
- How is the pattern you described in part (c) shown in your graph?